

## SELF-RIGHTING WATERFOWL DECOY WITH INTEGRATED ANCHOR AND LOCKING MECHANISM

### FIELD OF THE INVENTION

**[0001]** The present invention relates to waterfowl decoys. More particularly, the present invention relates to waterfowl decoys with a weighted reel, an integrated cranking means to secure an anchor line, and a counter-sunk anchor weight.

### BACKGROUND OF THE INVENTION

**[0002]** The floating waterfowl decoy has long been used by hunters to attract waterfowl. The use of decoys is imperative to a successful hunt, especially early in the season. Hunters have, however, long experienced problems using decoys; such as deployment, retrieval, and maintaining the decoys in a desired position while deployed in addition to storage and transportation difficulties. A typical hunter may deploy a decoy only to have the decoy tilt once deployed and fail to self-right. Various ballast means attached to the exterior have been employed in prior art decoys. Typically, however, such ballast protrudes from the decoy thereby frustrating both storage and transportation. Decoys are maintained in position by using anchors, attached to decoys by flexible anchor lines. Decoys in the prior art have required hunters to wrap anchor lines around decoys, often leading to entanglement, both upon deployment and upon retrieval. Prior art anchors often protrude from decoys,

**EL 961489882 US**

even when anchor lines are brought in and the anchor stowed, frustrating both storage and transportation similar to ballast and potentially marring or marking the finish on other decoys during storage and transportation. Prior art anchor lines are often of improper length and result in decoys not holding a desired pattern on the water surface. Later improvements employ various means of taking in anchor lines but many involve springs, metal components or other mechanisms subject to rust and corrosion that renders the decoys useless. Other prior art decoys require hunters to engage in the use of additional tools or implements to reel in or put out anchor line thus requiring the hunter to keep track of yet more equipment and hardware. Deployment and retrieval is made even more difficult by the fact that hunters often engage in this activity in pre-dawn or low light levels, regularly in cold and wet weather conditions.

[0003] Various attempts have been made to improve the waterfowl decoy. U.S. Pat. No. 1,789,649 employs a detent and gear to prevent an internal reel from rotating and playing out line after it has been set, and uses an enlarged nib and spring clip to hold the anchor. U.S. Pat. No. 1,951,424 uses a reel attached to a plate and anchor control mechanisms carried by the plate in one end of a chamber located in a decoy. U.S. Pat. No. 4,340,192 discloses a reel hung inside the body of a decoy, with a ratchet-like locking system of notches to engage a locking pin, which also serves as the release lever and line guide. U.S. Pat. No. 4,757,630 discloses a decoy anchoring mechanism with a detachable reel and weighted handle that is mounted vertically under the keel of a decoy using a pivoting cam and clamp assembly. U.S. Pat. No. 4,827,653 employs the

use of a hollow keeled-decoy wherein an anchor reel mechanism is enclosed in the hollow keel, the anchor being retrieved by inserting a crank in one end of the reel and cranking to wind the anchor line on a spool, the anchor line being secured by a threaded plug inserted in the anchor housing. U.S. Pat. No. 6,487,811 and U.S. Pat. Appl. No. 2002/0157299 disclose a waterfowl decoy with a self-retracting anchor line characterized by a spring-actuated anchor line reel, the anchor trained through an opening in the breast section of the decoy, the anchor being secured by a lock member located in the breast opening.

#### SUMMARY OF THE INVENTION

**[0004]** The present invention provides an improved waterfowl decoy. More particularly, in the preferred embodiment of this invention, a waterfowl decoy is provided that has a weighted reel which will function to cause the decoy to automatically self-right when deployed thus eliminating both the tendency of a decoy to tilt or upend and eliminates the presence of a weighted keel that protrudes from the body of a decoy. The weighted reel can also function to resist anchor cord from playing out and allowing the decoys to move from the pattern in which they are placed. The weighted reel also facilitates the retrieving and securing an anchor line.

**[0005]** Generally, the waterfowl decoy according to the preferred embodiment of this invention comprises a buoyant body portion simulating a waterfowl; a reel; an anchor line attached to the reel; an anchor attached to the anchor line; and an integrated cranking means to secure the anchor line. The

integrated cranking means provides means of winding and unwinding anchor line and the attached anchor and when not in use, may be folded or stowed in an integrated manner within a recess located in the buoyant body. This arrangement provides a convenient means to let out and retrieve anchor line without the use of additional tools or hardware.

**[0006]** According to a further feature of the preferred embodiment of this invention, through stowage of the integrated cranking means the anchor is secured. When the cranking means is unfolded the anchor, by means of gravity, deploys line. Once the anchor has settled on the bed of the associated body of water in which the decoy is located, the cranking means is then folded and stowed. The cranking means comprising a handle having at least one jointed connection; rotatably connected to a reel mounted in the buoyant body; and means for the cranking means to effect rotation of the reel. This arrangement allows the anchor line of the decoy to be quickly and easily secured without the use of additional tools or hardware and eliminates springs or other metal components subject to rust and corrosion.

**[0007]** According to a further feature of the preferred embodiment of this invention, the buoyant body contains a recess and opening through which the anchor line is trained; the recess of shape and dimension to partially or wholly receive the anchor.

**[0008]** According to a further feature of the preferred embodiment of this invention, the reel contains one or more holes that, when exposed outside

the buoyant body, provide means by which to attach multiple decoys together through the use of string, rope or cable.

**[0009]** According to yet a further feature of the invention, the reel is partially disposed within the buoyant body and partially exposed outside the buoyant body. Such arrangement allows for the weighted portion of the reel, when left to swing outside the buoyant body, to be appropriated colored to resemble the feet of a waterfowl.

**[0010]** Further areas of applicability of the present invention will become apparent from the detailed description provided hereinafter. It should be understood that the detailed description and specific examples, while indicating the preferred embodiment of the invention, are intended for purposes of illustration only and are not intended to limit the scope of the invention.

#### BRIEF DESCRIPTION OF THE DRAWINGS

**[0011]** The present invention will become more fully understood from the detailed description and the accompanying drawings, wherein:

**[0012]** **FIG. 1** is a perspective view of a preferred embodiment of a waterfowl decoy constructed in accordance with the principles of this invention, with portions broken away to reveal details of construction;

**[0013]** **Fig. 2** is a side elevation view of the waterfowl decoy;

**[0014]** **Fig. 3** is a partial longitudinal cross sectional view of the reel and crank mechanism for the anchor;

**[0015]**     **Fig. 4** is a partial horizontal cross sectional view of the decoy, showing the reel and crank mechanism for the anchor;

**[0016]**     **Fig. 5** is a partial transverse vertical cross sectional view of the decoy, showing the reel and crank mechanism;

**[0017]**     **Fig. 6** is partial cross-sectional view of the crank mechanism with the reel removed, showing the crank mechanism in its retracted stowed position;

**[0018]**     **Fig. 7** is a partial cross-sectional view of the crank mechanism with the reel removed, showing the crank mechanism in its extended operational position;

**[0019]**     **Fig. 8** is a partial cross-sectional view of the crank mechanism with the reel removed, showing the crank mechanism in its retraced stowed position,;

**[0020]**     **Fig. 9** is an exploded perspective view of the reel and crank mechanism;

**[0021]**     **Fig. 10** is an exploded perspective view of the reel on the crank mechanism;

**[0022]**     **Fig. 11** is a top plan view of the reel and crank mechanism;

**[0023]**     **Fig. 11A** is a partial left side elevation view of the crank mechanism; **Fig. 11B** is a partial right side elevation view of the crank mechanism.

**[0024]**     Corresponding reference numerals indicate corresponding parts throughout the several views of the drawings; and

**[0025]** Fig. 11C is a partial plan view of the set screw.

# DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

**[0026]** The following description of the preferred embodiment(s) is merely exemplary in nature and is in no way intended to limit the invention, its application, or uses. In the description, like parts are marked throughout the specification and drawing with the same reference numerals, respectively. The drawing figures are not necessarily to scale in the interest of clarity and conciseness.

**[0027]** Referring to FIG. 1, a preferred embodiment of a waterfowl decoy in accordance with the invention is indicated generally as **20**. The decoy **20** includes a buoyant body **22** configured to resemble a particular waterfowl of interest. The waterfowl decoy **20** is characterized as a migratory waterfowl, such as a duck. However, other types of waterfowl decoys, such as those for geese, may benefit from the improvements provided by the invention. The decoy is preferably shaped and painted to realistically represent the selected waterfowl.

**[0028]** The decoy **20** further comprises an anchor mechanism **24** comprising a weighted reel **26**; a crank mechanism **28** for operating the reel, an anchor **30**, and an anchor chord **32** extending from the reel to the anchor. The anchor mechanism **24** is at least partially disposed in a recess **34** in the body **22**. A separate recess **36** is provided for receiving the anchor **30** when it is in its retracted position.

**[0029]** The crank mechanism **28** comprises a shaft **38** rotatably mounted in the recess **34** in the body **22**, between two plates **40** and **42** secured

to the body **22** (e.g. molded in) (see Fig. 4). The shaft **38** has bore **44** therethrough having a square cross-section. An extension **46**, having a corresponding square cross section, is telescoping disposed in the bore **44**. A crank body **48** is mounted on the end of the extension **46**. A handle **50** is hingedly mounted on the crank body **44**, for swinging movement between an deployed position and a stowed position.

**[0030]** The weighted reel **26** comprises first and second halves **54** and **56** mounted on the shaft **38** (see Fig. 10). A semi-circular weight **58** is disposed between the halves **54** and **56**, which eccentrically weights the reel **26**. There is a hole **60** in half **54** for securing the anchor cord **32**.

**[0031]** As shown in Fig. 6, the handle **50** is swung from the body **48**, which is disposed in a recess **62** in the body **22**. As shown Fig. 7, the body **48** can be pulled from the recess **68** and the handle can be operated to turn the extension **46**, which turns the shaft **38**, which in turn winds or unwinds the anchor cord **32** on the reel **26**. When the reel **26** is in the desired position, the handle **50** can be folded back into the body **48**, and the body can be pushed back into the recess **62**.

**[0032]** The reel **26** is preferably eccentrically weighted by the weight **58**. This eccentric weighting helps maintain the reel **26** in its desired position, resisting further winding or unwinding of the anchor cord **32**. Further winding or unwinding of the cord lifts the weight **58**, thereby resisting (but not preventing) turning of the reel **26**. The crank body **48** can also engage the recess **62** to further resist turning of the reel **26**. A set screw **64** can also be provided in a

threaded socket **66** to urge a resilient member **68** to engage the shaft **38** and resist turning. The weight **58** also projects below the bottom of the body **22**, to self-right the decoy **20**, and resist tipping.

#### OPERATION

**[0033]** In operation the anchor **30** is either pulled from the recess **36**, or the crank mechanism **28** can be used to unwind the cord to release the anchor. When the cord **32** is at the desired length, the decoy **20** can be thrown into the water. The eccentric weighting of the reel **26** preferably allows the anchor **30** to unwind additional cord **32** until the anchor hits bottom. Thereafter, the eccentric weight **58** is sufficient to resist rotation of the reel **26**, keeping the cord **32** at the proper length. Because in the preferred embodiment the weight **58** projects from the bottom of the decoy **20**, it tends to right the decoy, and to resist further tipping.

**[0034]** After the hunt, the decoys can be collected and the cord quickly and easily wound by unfolding the handle and pulling the crank body **48** out of the recess **62** to turn the crank to turn extension **46** to turn the shaft **38**, and thus the reel **26**. The cord **32** is wound until the anchor **30** is seated in the recess **36**. A detent could be provided to help hold the anchor **30** in the recess **36**. A passage **70** through the reel **26** allows multiple decoys to be collected on the same tether, which also has the advantage of stopping rotation of the reel **26**, and deployment of the anchors **30**.

**[0035]** The foregoing description of the invention is merely exemplary in nature and, thus, variations that do not depart from the substance of the

invention are intended to be within the scope of the invention. Such variations are not to be regarded as a departure from the spirit and scope of the invention.